

CLAIMS

1. A twin-clutch transmission characterized in that:
driving force from an engine can be transmitted to a first input shaft (14) via a first clutch (12) and to a second input shaft (18) via a second clutch (16);
a plurality of pairs of shift gears are disposed between the first input shaft and the second input shaft and a first output shaft (20), second output shaft (22), and a sub shaft (24) disposed in parallel with the first input shaft and the second input shaft;
a pair of first speed gears (26a, 26b) is provided between the first input shaft and the first output shaft, and a pair of fourth speed gears (30a, 30b) is provided between the second input shaft and the first output shaft;
a pair of third speed gears (34a, 34b) and a pair of fifth speed gears (36a, 36b) are provided between the first input shaft and the second output shaft, and a pair of second speed gears (40a, 40b) and a pair of sixth speed gears (30a, 42b) are provided between the second input shaft and the second output shaft; and
a backward input gear (34b) integrated with the first input shaft and a backward output gear (46b) provided on the first output shaft are connected to each other via idler gears (46c, 46d) provided on the sub shaft.
2. A twin-clutch transmission according to claim 1, characterized in that the third speed input gear (34a) of the pair of third speed gears, which is integrated with the

first input shaft (14), doubles as a backward input gear.

3. A twin-clutch transmission according to claim 1 or 2, characterized in that the backward output gear (46b) and the pair of second speed gears (40a, 40b) overlap in an axial direction.

4. A twin-clutch transmission according to any one of claims 1 to 3, characterized in that a sleeve (38) capable of connecting the third speed output gear (34b) of the pair of third speed gears and the fifth speed output gear (36b) of the pair of fifth speed gears to the second output shaft (22), and the pair of first speed gears (26a, 26b) partially overlap in an axial direction.

5. A twin-clutch transmission according to any one of claims 1 to 3, characterized in that a fifth input gear of the pair of fifth speed gears (36a, 36b), which is integrated with the first input shaft (14), doubles as an input gear of a pair of seventh speed gears (36a, 60b).

6. A twin-clutch transmission characterized in that: driving force from an engine can be transmitted to a first input shaft (14) via a first clutch (12) and to a second input shaft (18) via a second clutch (16);

a plurality of pairs of shift gears are arranged between the first input shaft and the second input shaft and a first output shaft (20), second output shaft (22), and a sub shaft (24) arranged in parallel with the first input shaft and the second input shaft; and

teeth (38a) for parking lock are formed on a sleeve (38) capable of connecting an output gear of the plurality

of pairs of shift gears to either of the first output shaft and the second output shaft.